LOUISVILLE METRO
AIR POLLUTION CONTROL DISTRICT
850 Barret Ave., Louisville, Kentucky 40204

14 September 2014

Statement of Basis

Company: Clariant Corporation – Louisville West Plant

Plant Location: 1227 South 12th Street, Louisville, Kentucky 40210

Date Application Received: 04-01-2014 **Date Admin Complete:** 9-11-2014

Date of Draft Permit: 9-14-2014 **Date of Public Notice:** 9-14-2014

District Engineer: Virginia Rhodes **Permit No:** C-0036-1000

Plant ID: 0036 **SIC Code:** 2819 N**AICS**: 325188 **AFS:** 00036

Introduction:

This permit will be issued pursuant to: (1) District Regulation 2.16, (2) Title 40 of the Code of Federal Regulations Part 70, and (3) Title V of the Clean Air Act Amendments of 1990.
Its purpose is to identify and consolidate existing District and Federal air requirements and to provide methods of determining continued compliance with these requirements.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO_2), carbon monoxide (CO), 1 hr and 8 hr ozone (O_3), and particulate matter less than 10 microns (PM_{10}); and is a non-attainment area for particulate matter less than 2.5 microns ($PM_{2.5}$) and partial non-attainment for sulfur dioxide (SO_2).

Application Type/Permit Activity:

[X] Initial Issuance

[ ] Permit Revision
- [ ] Administrative
- [ ] Minor
- [ ] Significant

[ ] Permit Renewal

Compliance Summary:

[X] Compliance certification signed [ ] Compliance schedule included
[ ] Source is out of compliance [X] Source is operating in compliance

I. Source Information

1. Source Description: Clariant Corp. – Louisville West Plant manufactures customized precipitated catalysts and catalyst carriers.

2. Project Description: The source has requested to construct a catalyst plant consisting of tank farm loading, support synthesis, catalyst production, solvent regeneration, by-product isolation, waste gas treatment, waste water treatment; and utilities.

3. Site Determination: Clariant Corporation is the parent company, operates two facilities in Louisville, the South plant at 4900 Crittenden Drive and the West plant at South 12th Street. Based on information obtained from the company and the criteria used by EPA to make single source determinations, the District has determined that both locations are separate sources. Both locations would have to meet the following three criteria in order to be considered one single source for Title V and PSD/NSR applicability:

- Same industrial grouping,
- Common ownership or control, and,
- Contiguous or adjacent locations.

Both locations have the same first two digit SIC code (28).

Both are 100% owned and operated by their parent company.

Neither location is contiguous or adjacent. Each plant acts independently of the other, operating separate production lines, with minimal transfer of material between plants that is commercially available from other suppliers. Furthermore, there are no Clariant Corporation dedicated transportation links between the plants.

3. Permit Revisions:

Revision	Issue Date	Public Notice Date	Type	Description
Initial	xx/xx/2014	9/14/2014	Initial	Initial permit issuance

4. Fugitive Sources: There are fugitive PM/PM_{10}/$PM_{2.5}$, VOC, HAP, NOx and TAC emissions from the manufacturing of customized precipitated catalysts and catalyst carriers.

5. Emission Unit Summary: This construction project consists of the following emission units.

TV-14-1013	
Emission Unit	**Equipment Description**
W62	Tank Farm
W63	Support Synthesis
W64	Catalyst Production
W65	Solvent Regeneration
W66	By-Product Isolation
W67	Waste Gas Treatment
W68	Utilities
W69	Waste Water Treatment

6. Plant-Wide Emission Summary:

Pollutant	Actual Emissions (tpy) 2012 Data	Pollutant that triggered Major Source Status
CO	21.19	No
NO_x	30.70	*Yes
SO_2	0.15	No
$PM/PM_{10}/PM_{2.5}$	25.51	*Yes
VOC	13.08	*Yes
Total HAPs	0.80	*Yes
CO_2e	No information	No information

* The source has accepted synthetic minor limits for these pollutants.

7. Construction Permit Applicable Requirements:

[ ] PSD [ ] 40 CFR 60 [X] SIP [ ] 40 CFR 63
[ ] NSR [ ] 40 CFR 61 [X] District-Origin [ ] Other

8. MACT Requirements: There are no MACT Requirements referenced in this construction permit.

9. Referenced Federal Regulations in Permit: There are no federal regulations referenced in this construction permit.

II. Regulatory Analysis

1. Acid Rain Requirements: The source is not subject to the Acid Rain Program.

2. Stratospheric Ozone Protection Requirements: This source does not manufacture, sell, or distribute any of the chemicals listed in title VI of the CAAA.

Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

3. Prevention of Accidental Releases 112(r): The source does manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount.

4. 40 CFR Part 64 Applicability Determination: The source is not a major source because the source has taken synthetic minor limits for all criteria pollutants. Therefore, 40 CFR 64 does not apply. 40 CFR 63 VVVVVV required Clariant West to obtain a Title V permit.

5. Basis of Regulation Applicability

a. **Plant-wide**

Regulation 2.03, section 6.1 requires sufficient monitoring, record keeping, and reporting to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the District upon request.

b. **Applicable Regulations**:

Regulation	Title	Type
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements	SIP
2.04	Construction or Modification of Major Sources in or Impacting upon Non-Attainment Areas (Emission Offset Requirements)	SIP
2.05	Prevention of Significant Deterioration of Air Quality	SIP
5.00	Standards for Toxic Air Contaminants and Hazardous air Pollutants, Definitions	Local
5.01	General Provisions	Local
5.14	Hazardous Air Pollutants and Source Categories	Local
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	Local
5.21	Environmental Acceptability for Toxic Air Contaminants	Local
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	Local

Regulation	Title	Type
5.23	Categories of Toxic Air Contaminants	Local
7.08	Standards of Performance for New Process Operations	SIP
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	SIP
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	SIP

c. **Basis for Applicability**

Regulation	Basis for Applicability
2.05	Establishes requirements for the prevention of deterioration of air quality in regions of the country that currently meet the NAAQS
5.00	Establishes definitions of terms used in the Strategic Toxic Air Reduction Program
5.01	Establishes the requirements for Environmental Acceptability for Toxic Air Contaminants (TACs).
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.20	Establishes the methodology for determining the benchmark ambient concentration of a toxic air contaminant
5.21	Establishes the criteria for determining the environmental acceptability of emissions of toxic air contaminants
5.22	Establishes the procedures for determining the maximum ambient concentration of a toxic air contaminant
5.23	Establishes categories of toxic air contaminants.
7.08	Establishes emission standards for processes that emit PM which were installed after September 1, 1976.
7.12	Establishes VOC standards for storage tanks constructed after April 19, 1972 with a capacity greater than 250 gallons.
7.25	Establishes VOC standards for affected facilities constructed after June 13, 1979.

d. **Equipment**

New Equipment			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
W62 - Tank Farm			
V100.70	Mobile Temporary Container,[1] 5,283 gallons	7.12 (Insignificant Activity)	NA
C100.1	Dryer 110 gph	7.25 (Insignificant Activity)	PU628
V100.30	Dryer Vessel 110 gph	7.25 (Insignificant Activity)	PU628
V100.31	Dryer Vessel 110 gph	7.25 (Insignificant Activity)	PU628

1 ISO containers (V100.70, V110.70, V130.70, and V140.70) will be filled offsite and will be filled offsite and will only be used onsite to transfer material out of the containers; therefore, submerged fill is not applicable.

New Equipment			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
V101.1	Storage Tank Submerged Fill) 7,925 gallons	7.12 (Insignificant Activity)	E626.40 PU628
V110.70	Mobile Temporary Container[1] 5,283 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.12	NA
C110.1	Dryer 112 gph	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	PU628
V110.30	Dryer Vessel 112 gph	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	PU628
V110.31	Dryer Vessel 112 gph	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	PU628
V130.70	Mobile Temporary Container,[1] 5,283 gallons	7.12 (Insignificant Activity)	NA
V131.1	Processing Tank, 766 gallons	7.25 (Insignificant Activity)	PU628
V132.1	Storage Tank,[2] 3,963 gallons	7.12 (Insignificant Activity)	NA
V136.1	Processing Tank, 766 gallons	7.25 (Insignificant Activity)	PU628
V137.1	Dry Storage Tank[2] 1,321 gallons	7.12 (Insignificant Activity)	NA
V140.70	Mobile Temporary Container[1] 5,283 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.12	NA
C140.1	Dryer 110 gph	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	PU628
V140.30	Dryer Vessel 110 gph	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	PU628
V140.31	Dryer Vessel 110 gph	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	PU628
V150.1	Storage Tank 1[2] 14,926 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	E624.40 C627.3 C627.4 C627.5 PU628
V151.1	Storage Tank II[3] 14,926 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	E624.40 C627.3 C627.4 C627.5 PU628
W63 – Support Synthesis			
PU203	Bag Emptying Unit	7.08 (Insignificant Activity)	NA
R200.1	Reactor 1	7.08 7.25	E626.40 PU628
R201.1	Reactor 2	7.08 7.25	E626.40 PU628
R220.1	Reactor	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E626.40 PU628
V231.1	Re-suspension Storage Tank 1[3] 2,351 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E626.40 PU628

2 Storage Tanks contain a non-VOC raw material; therefore, Regulation 7.12 is not applicable.

3 Recycled Storage Tanks are identified as process tanks instead of storage tanks since these tanks are washing/slurry tanks with agitation that are filled and emptied each batch; therefore, these tanks are subject to Regulation 7.25 instead of Regulation 7.12.

New Equipment			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
V232.1	Re-suspension Storage Tank 2^3 2,351gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E626.40 PU628
V234.1	SRS Transfer Tank 1,321 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E626.40 PU628
D240.1/ E240.40	Dryer with Heat Exchanger	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	F240.50 E626.40 PU628
V240.30	Transfer Vessel 185 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E626.40 PU628
V244.1	Blender	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	F244.50 PU628
F244.51	Vibrating Sieve	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	V244.30 PU628
244.90	Container/Drum Filling Unit	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	V244.30 PU628
244.91	Drum Filling Unit	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	V244.30 PU628
PU244	Drum Emptying Unit	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	V244.31 PU628
W64 – Catalyst Production			
PU300.80	Container Emptying Unit – Line 1	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	NA
PU305.80	Container Emptying Unit – Line 2	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	NA
R300.1	Reactor – Line 1	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	E624.40 C627.3 C627.4 C627.5 PU628
R305.1	Reactor – Line 2	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	E624.40 C627.3 C627.4 C627.5 PU628
R310.1	Reactor I – Line 1	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E610.40 C627.3 C627.4 C627.5 PU628
R315.1	Reactor I – Line 2	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E610.40 C627.3 C627.4 C627.5 PU628
F320.1	Filter – Line 1	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	E624.40

New Equipment			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
		7.25	C627.3 C627.4 C627.5 PU628
F325.1	Filter – Line 2	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	E624.40 C627.3 C627.4 C627.5 PU628
		7.25	
R311.1	Reactor II – Line 1	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	E610.40 C627.3 C627.4 C627.5 PU628
		7.25	
R316.1	Reactor II – Line 2	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	E610.40 C627.3 C627.4 C627.5 PU628
		7.25	
V321.1	Recycled Storage Tank with agitation[4] – Line 1 2,298 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	E624.40 C627.3 C627.4 C627.5 PU628
		7.25	
V326.1	Recycled Storage Tank with agitation[4] – Line 2 2,298 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	E624.40 C627.3 C627.4 C627.5 PU628
		7.25	
V322.1	Recycled Storage Tank[3] – Line 1 3,300 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	E624.40 C627.3 C627.4 C627.5 PU628
		7.25	
V323.1	SRC Transfer Tank – Line 1, 1,321 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	E624.40 C627.3 C627.4 C627.5 PU628
		7.25	
V327.1	Recycled Storage Tank[3] – Line 2 (Submerged Fill) 3,300 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	E624.40 C627.3 C627.4 C627.5 PU628
		7.25	
V328.1	SRC Transfer Tank – Line 2 1,321 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	E624.40 C627.3 C627.4 C627.5 PU628
		7.25	

New Equipment			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
D330.1/ E330.40	Dryer with Heat Exchanger – Line 1	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	F330.50 E624.40 C627.3 C627.4 C627.5 PU628
V330.30	Transfer Vessel 185 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E624.40 C627.3 C627.4 C627.5 PU628
D335.1/ E335.40	Dryer with Heat Exchanger – Line 2	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	F335.50 E624.40 C627.3 C627.4 C627.5 PU628
V335.30	Transfer Vessel 185 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E624.40 C627.3 C627.4 C627.5 PU628
V332.1	Blender – Line 1	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	F332.50 PU628
V337.1	Blender – Line 2	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	F337.50 PU628
F332.51	Vibrating Sieve – Line 1	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	V332.30 PU628
F337.51	Vibrating Sieve – Line 2	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	V337.30 PU628
PU332.81	Drum Filling Unit – Line 1	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	V332.30 PU628
PU337.81	Drum Filling Unit – Line 2	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	V337.30 PU628
332.90	Off Spec Drum Filling Unit – Line 1	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	V332.30 PU628
337.90	Off Spec Drum Filling Unit – Line 2	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	V337.30 PU628
PU332.80	Drum Emptying Unit – Line 1	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	V332.31 PU628
PU337.80	Drum Emptying Unit – Line 2	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25 7.08	V332.31 PU628

New Equipment			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
W65- Solvent Regeneration			
V400.1	SRS Storage Tank (Submerged Fill) 19,628 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.12	E626.40 PU628
E403.41/ C403.10/ E403.40/ E403.42	Reboiler with Column, Overhead Interchange and Condenser	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E626.40 PU628
V403.30	Reflux Vessel	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E626.40 PU628
E403.43/ C403.20/ E403.44	Reboiler with Column and Condenser	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E626.40 PU628
V403.31	Reflux Vessel	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	E626.40 PU628
V404.1	Storage Tank (Submerged Fill) 19,628 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.12	E626.40 PU628
V407.1	Storage Tank[2] 2,642 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.12	E626.40 PU628
V410.1	SRC Storage Tank 1 (Submerged Fill) 19,628 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.12	E624.40 C627.3 C627.4 C627.5 PU628
V420.1	SRC Storage Tank II (Submerged Fill) 19,628 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.12	E624.40 C627.3 C627.4 C627.5 PU628
C413.10/ E413.40/ E413.41	1st Stage Distillation Column and Falling Film Evaporator with Condenser	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E624.40 C627.3 C627.4 C627.5 PU628
V413.30	Reflux Drum 383 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E624.40 C627.3 C627.4 C627.5 PU628
C414.10 /E414.40/ E414.41	2nd Stage Distillation Column and Falling Film Evaporator with Condenser	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E624.40 C627.3 C627.4 C627.5 PU628
V414.30	Reflux Drum 180 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E624.40 C627.3 C627.4 C627.5 PU628
C415.10/ E415.40/ E415.41	3rd Stage Distillation Column and Falling Film Evaporator with Condenser	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E624.40 C627.3 C627.4 C627.5 PU628

New Equipment			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
V415.30	Reflux Drum 90 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E624.40 C627.3 C627.4 C627.5 PU628
V447.1	Storage Tank (Submerged Fill) 7,925 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.12	E624.40 C627.3 C627.4 C627.5 PU628
V427.1	Storage Tank (Submerged Fill) 7,925 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.12	E624.40 C627.3 C627.4 C627.5 PU628
V437.1	Storage Tank/Mixing Vessel[3] 1,928 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E624.40 C627.3 C627.4 C627.5 PU628
V417.1	Storage Tank[2] 5,072 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.12	E624.40 C627.3 C627.4 C627.5 PU628
W66 – By-Product Isolation			
V600.1	SRC Storage (Surge/Transfer Vessel with Agitation) and Cooling Tank, 6,710 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E624.40 C627.3 C627.4 C627.5 PU628
V601.1	Tank 3,170 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E624.40 C627.3 C627.4 C627.5 PU628
V602.1	Tank1 3,170 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E624.40 C627.3 C627.4 C627.5 PU628
V603.1	Tank 2 3,170 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E624.40 C627.3 C627.4 C627.5 PU628
V608.1	SRC Transfer Tank 1321 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	E624.40 C627.3 C627.4 C627.5 PU628
D606.1/ E606.40	Dryer with Heat Exchanger	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 7.25	F606.50 E624.40

New Equipment			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
		7.08	C627.3 C627.4 C627.5 PU628
V606.30	Transfer Vessel 529 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	E624.40 C627.3 C627.4 C627.5 PU628
		7.25	
PU607	Big-Bag Filling Unit	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	V607.30 PU628
		7.25	
		7.08	
W67 – Waste gas Treatment			
V610.1	Recovered Solvent Storage (Transfer Vessel) Tank 1,540 gal	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	C627.3 C627.4 C627.5 PU628
		7.25	
V624.1	Recovered Solvent Storage (Transfer Vessel) Tank 1,540 gal	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	C627.3 C627.4 C627.5 PU628
		7.25	
V626.1	Recovered Solvent Storage (Transfer Vessel) Tank 1,540 gal	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	PU628
		7.25	
W68 - Utilities			
E011.1/E011.2	Cooling Tower	7.08 (Insignificant Activity)	NA
V690.1	Blow-Down Tank		NA
W69 – Waste Water Treatment			
V691.1[1]	Emergency Drainage Tank[3] 6,850 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	NA
V650.1	Phase Separator 3,590 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	C627.3 C627.4 C627.5 PU628
		7.25	
V650.30	Solvent Collection Tank 18 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	C627.3 C627.4 C627.5 PU628
		7.25	
V651.1	Waste Water Tank 1(Basin) 8,000 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	NA
		7.25	
V651.2	Waste Water Tank 2 (Basin) 8,000 gallons	5.00, 5.01, 5.20, 5.21, 5.22, 5.23	NA

Control Device			
Control ID	**Description**	**Control Efficiency**	**Stack ID**
F240.50	Baghouse/Fabric Filter	95%	ST628.190
F224.50	Baghouse/Fabric Filter	95%	ST628.190
F330.50	Baghouse/Fabric Filter	95%	ST628.190
F332.50	Baghouse/Fabric Filter	95%	ST628.190
F335.50	Baghouse/Fabric Filter	95%	ST628.190
F337.50	Baghouse/Fabric Filter	95%	ST628.190
F606.50	Baghouse/Fabric Filter	95%	ST628.190

C627.3	Eductor to control non-VOC HAP	99.5% combined	ST628.190
C627.4	Recirculated Packed Bed Scrubber (Stage 1) to control non-VOC HAP		ST628.190
C627.5	Recirculated Packed Bed Scrubber (Stage 2) to control non-VOC HAP		ST628.190
E610.40	Shell & Tube Condenser[4] (BACT)	95%	ST628.190
E624.40	Shell & Tube Condenser[5] (BACT)	95%	ST628.190
E626.40	Shell & Tube Condenser[5] (BACT)	95%	ST628.190
V244.30	Absorber to control PM	95%	ST628.190
V244.31	Absorber to control PM	95%	ST628.190
V332.30	Absorber to control PM	95%	ST628.190
V332.31	Absorber to control PM	95%	ST628.190
V337.30	Absorber to control PM	95%	ST628.190
V607.3	Absorber to control PM	95%	ST628.190
PU628	Flare to control VOCs, Hexane, and Toluene	75%	ST628.190

e. **Standards/Operating Limits**

i. **Plant-wide**

1) Clariant Corp. – Louisville West Plant is a major source for $PM/PM_{10}/PM_{2.5}$, VOC, NOX, single HAP, and total HAPs. To preclude the requirements of Regulation 2.04, Construction or Modification of Major Sources In or Impacting Upon Non-Attainment Areas, and Regulation 2.05, Prevention of Significant Deterioration of Air Quality, the source is subject to a plant-wide limit of less than 100 tons during any consecutive 12-month period for $PM/PM_{10}/PM_{2.5}$, NOX, and VOC.

2) Pursuant to Regulation 2.17, section 5.1, the source is required to limit the plant-wide emissions of any individual HAP to less than 10 tons during any consecutive 12-month period. For all HAPs combined, the source is required to limit the plant-wide emissions of all HAPs to less than 25 tons during any consecutive 12-month period.

ii. **VOC**

1) For the equipment subject to Regulation 7.25 not controlled by the condensers (C100.1, V100.30, V100.31, C110.1, V110.30, V110.31, C140.1, V140.30. V140.31, V131.1, V136.1, V244.1, F244.51, 244.90, 244.91, PU244, PU300.80, PU305.80, V332.1, V337.1, F332.51, F337.51, PU332.81, PU337.81, 332.90, 337.90, PU332.80, PU337.80, PU607, V610.1, V624.1, V626.1, V690.1,

4 Condensers (E610.40, E624.40, E626.40) have been determined to represent Best Available Control Technology (BACT) for controlling volatile organic compounds for Regulation 7.25 per the BACT Analysis dated March 31, 2014, revised June 13, 2014, revised September 5, 2014.

V650.1, V650.30, V651.1, V651.2), Regulation 7.25 establishes a plant-wide VOC limit of 5 tons per year for all affected facilities, unless Best Available Control Technology (BACT) level of control is utilized to reduce the the VOC emissions.

2) The Company submitted a BACT analysis dated March 31, 2014, revised July 9, 2014, for this project that that showed that for the equipment subject to Regulation 7.25 controlled by condensers labeled E610.40, E624.40, and E626.40 (R200.1, R201.1, R220.1, V231.1, V232.1, V234.1, D240.1/E240.40, V240.30, R300.1, R305.1, R310.1, R315.1, F320.1, F325.1, R311.1, R316.1, V321.1, V323.1, V326.1, V322,1, V327.1, V328.1, D330.1/E330.40, V330.30, D335.1/E335.40, V335.30, E403.41/C403.10/E403.40/E403.42, V403.40, E403.43/C403.20/E403.44, V403.31, C413.10/ E413.40/E413.41, V413.30, C414.10/E414.40/E414.41, V414.30, C415.10/E415.40/E415.41, V415.30, V437.1, V600.1, V601.1, V602.1, V603.1, V608.1, D606.1/E606.40, V606.30) venting to the condensers is considered BACT based on 95% control efficiency and potential controlled VOC emissions of 40.22 tpy.[4]

3) Regulation 7.12 establishes VOC standards for storage tanks tanks with a capacity greater than 250 gallons. For storage vessels (V132.1, V137.1, V407.1, V417.1), the source shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia.

4) Regulation 7.12, section 3.3 requires that storage vessels (V101.1, V400.1, V404.1, V410.1, V420.1, V427.1, and V447.1) be equipped with a permanent submerged fill pipe. All of these storage vessels are equipped with submerged fill.

5) Regulation 7.12, section 4.1 establishes VOC operating requirements for storage tanks with a capacity greater than 250 gallons. For all storage tanks subject to Regulation 7.12, the owner or operator shall ensure that there are no visible holes, tears, or other openings in the seal or any seal fabric.

6) Regulation 7.08, section 3.1.2 establishes PM standards for process equipment. Per Table 1 to Regulation 7.08, the maximum allowable emission rate is 2.34 lb PM/hr for equipment with a process weight rate of less than or equal to 1,000 pounds per hour.

7) The potential PM emissions from all emission points in this project subject to Regulation 7.08, except for emission points D606.1 and PU607, cannot exceed the standard uncontrolled. Emission points D606.1 and PU607 cannot exceed the standard controlled and will be required to be controlled at all times.

8) Regulation 7.08, section 3.1.1 establishes a standard for opacity to not equal or exceed 20%.

9) Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 (STAR Program) establish requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards. Clariant submitted potential emissions calculation with their application for all TACs associated with this project. The potential controlled TAC emissions are de minimis for this project as described in Regulation 5.21 Section 2. The following TACs were identified in the application for this project:

TAC	Abbreviation	TAC Category
Hexane	C_6H_{14}	4
Hydrochloric acid (hydrogen chloride)	HCl	2
Toluene	C_7H_8	2

10) The source is required to be environmentally acceptable for all TACs in accordance with Regulation 5.01, 5.21, and 5.23. The source shall not increase the TAC content in a raw material or substitute any raw materials or additional TACs for those identified in the initial permit application for the processes or equipment that would result in an increase in the quantity of a TAC above de minimis levels or those previously demonstrated to be environmentally acceptable without prior notification to, and approval by, the District.

11) The level of controls needed to meet the TAC de minimis levels in Regulation 5.21 are listed in the table below (1^{st} indicates first control device needed, etc.). The starred (*) emission units can meet the de minimis values without a control device.

Emission Point	Hexane	HCl	Toluene
W62 - Tank Farm			
V110.70	--	--	--
C110.1	*	--	--
V110.30			
V110.31			
V140.70	--	--	*
C140.1	--	--	*
V140.30			
V140.31			
V150.1	--	*	--
V151.1	--	*	--
W63 – Support Synthesis			
R220.1	*	--	--
V231.1	*	--	--
V232.1	*	--	--
V234.1	*	--	--
D240.1/E240.40	*	--	--
V240.30	*	--	--
V244.1	*	--	--
F244.51	*	--	--
244.90	*	--	--
244.91	*	--	--
PU244	*	--	--
W64 – Catalyst Production			
PU300.80	*	--	--
PU305.80	*	--	--
R300.1	*	--	--
R305.1	*	--	--
R310.1	*	2nd	--
R315.1	*	2nd	--
F320.1	*	*	*
F325.1	*	*	*
R311.1	*	1st	*
R316.1	*	1st	*
V321.1	--	*	*
V326.1	--	*	*
V322.1	*	--	--
V323.1	*	*	*
V327.1	*	--	--
V328.1	*	*	*
D330.1/E330.40	*	*	*
V330.30	*	*	*
D335.1/E335.40	*	*	*
V335.30	*	*	*
V332.1	*	*	--
V337.1	*	*	--
F332.51	*	*	--

Emission Point	Hexane	HCl	Toluene
F337.51	*	*	--
PU332.81	*	*	--
PU337.81	*	*	--
332.90	*	*	--
337.90	*	*	--
PU332.80	*	*	--
PU337.80	*	*	--
W65- Solvent Regeneration			
V400.1	*	--	--
E403.41/ C403.10/ E403.40/ E403.42	*	--	--
V403.30	*	--	--
E403.43/C403.20/E403.44	*	--	--
V403.31			
V404.1	*	--	--
V407.1	*	--	--
V410.1	*	*	*
V420.1	*	*	*
C413.10/E413.40/E413.41	*	1st	*
V413.30	*	*	*
C414.10/E414.40/E414.41	*	1st	*
V414.30	*	*	*
C415.10/E415.40/E415.41	*	1st	*
V415.30	*	*	*
V447.1	*	*	*
V427.1	*	*	*
V437.1	*	*	*
V417.1	*	*	*
W66 – By-Product Isolation			
V600.1	*	1st	--
V601.1	*	*	*
V602.1	*	*	--
V603.1	*	*	--
V608.1	*	*	*
D606.1/E606.40	*	*	--
V606.30	*	--	--
PU607	*	*	--
W67 – Waste gas Treatment			
V610.1	*	*	*
V624.1	*	*	*
V626.1	*	--	--
W68 – Utilities			
V690.1			
W69 – Waste Water Treatment			
V691.1	--	*	--
V650.1	*	--	*
V650.30	*	--	*

Emission Point	Hexane	HCl	Toluene
V651.1	*	--	*
V651.2	*	--	*

III. Other Requirements

1. **Temporary Sources:** The source did not request to operate any temporary facilities.

2. **Short Term Activities:** The source did not report any short term activities.

3. **Emissions Trading:** N/A

4. **Alternative Operating Scenarios**: The source did not request to operate under any alternative operating scenarios.

5. **Compliance History:**

Date	Description	Penalty	Status
04/11/2007	Exceeding ASL for Nickel Oxide	$1000	In compliance
09/08/2010	Visible NO_X plume	$1000	In compliance

6. **Insignificant Activities**

Insignificant Activities		
Description	**Quantity**	**Basis (Regulation 1.02)**
V100.70, ISO Container, 5,283 gallons	1	Section 1.38.1.2.1
C100.2/C100.3, Dryer, 110 gph	1	Section 1.38.1.2.1
V101.1, Storage Tank, 6,787 gallons	1	Section 1.38.1.2.1
V130.70, ISO Container, 5,283 gallons	1	Section 1.38.1.2.1
V131.1, Processing Tank, 775 gallons	1	Section 1.38.1.2.1
V132.1, Storage Tank, 3,453 gallons	1	Section 1.38.1.2.1
V136.1, Processing Tank, 775 gallons	1	Section 1.38.1.2.1
V137.1, Dry Storage Tank2 2,205 gallons	1	Section 1.38.1.2.1
PU203, Bag Emptying Unit	1	Section 1.38.1.2.1
E011.1/E011.2, Cooling Tower	1	Section 1.38.1.2.1

i. Insignificant Activities identified in District Regulation 1.02, Appendix A may be subject to size or production rate disclosure requirements.

ii. Insignificant Activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.

iii. Activities identified in Regulation 1.02, Appendix A, may not require a permit and may be insignificant with regard to application disclosure

requirements but may still have generally applicable requirements that continue to apply to the source and must be included in the permit.

iv. Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.

v. In lieu of recording annual throughputs and calculating actual annual emissions, the owner or operator may elect to report the pollutant Potential To Emit (PTE) as the annual emission for each piece of equipment.

vi. The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.

vii. The owner or operator shall annually submit an updated list of insignificant activities, including an identification of the additions and removals of insignificant activities that occurred during the preceding year, with the compliance certification due April 15th.